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# MANAGING LOCAL DRIVEWAY ACCESS AND SUBDIVISION STREET APPROVAL DECISIONS

**14 Community Planning Exchange**
One of a series of educational monographs for MAPC communities

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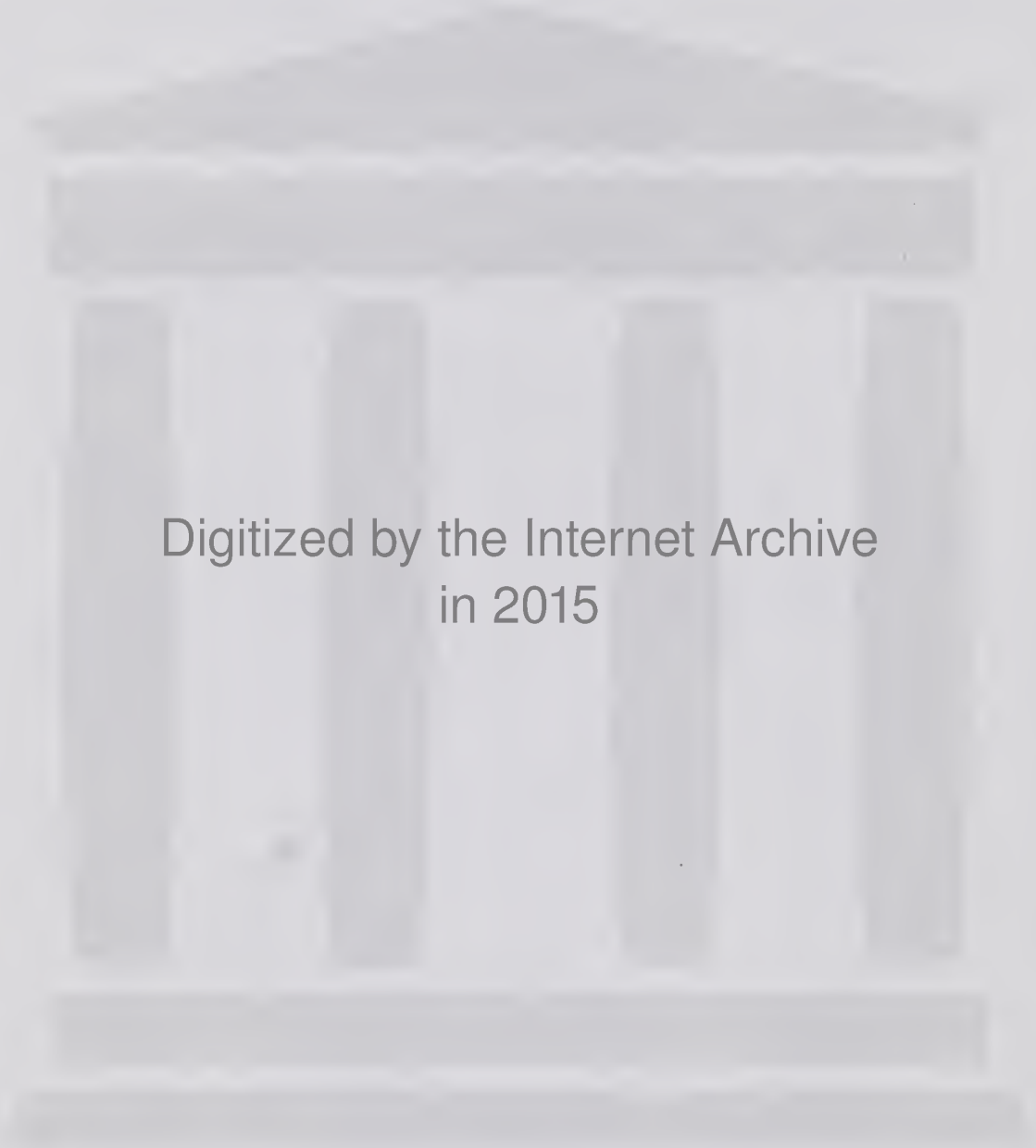

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# MANAGING LOCAL DRIVEWAY ACCESS

# AND

# SUBDIVISION STREET APPROVAL DECISIONS

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# MANAGING LOCAL DRIVEWAY AND SUBDIVISION STREET APPROVAL DECISIONS

## I. INTRODUCTION

This Community Planning Exchange strives to introduce municipal officials to methods of managing access to local streets. Frequent intersections and driveways can increase traffic congestion if turning movements conflict with through traffic. Although decision-makers can be provided with adequate powers to regulate access, commonly referred to as "curb cuts", to local roads, all-too-often community officials are unaware of the powers granted to them by state statute to regulate these accesses. Sample local ordinances for some of the items discussed in this report are available from the MAPC.

These discussions will be expanded upon in a forthcoming MAPC report entitled Access Management for Local Roads. Completion of this report is expected in June of 1990.

MAPC encourages communities to take the steps necessary to regulate access to local roads. Communities must also work with the Massachusetts Department of Public Works (MDPW) to be sure that access to state roads is provided in a cooperative community-state process.

## II. EXISTING LAWS RELATED TO GRANTING DRIVEWAY AND SUBDIVISION STREET APPROVALS

A community can limit new driveway curb cuts and subdivision street openings from public ways provided they allow the economic use of the property and the zoned uses. That is, provided local decisions do not result in a taking of private property, a community can follow reasonable steps to protect the integrity and safety of a public way.

### A. Massachusetts Department of Public Works Access Permit Statute

Chapter 81, Section 21 of the Massachusetts General Laws provides the MDPW with review authority over development projects that will increase traffic or the intensity of use of an existing access. It grants communities the ability to review, comment on and object to these permits.

Use of this regulation, and local coordination with MDPW review when an access permit is necessary, is important to improving access control for all roads.

### B. Home Rule Powers

The Home Rule Procedure Act governs the ability of communities to assert jurisdiction over acts that the legislature can grant it authority. The Home Rule Amendment is found in Constitutional Amendment Article 89 and Chapter 43B of the General Laws.

Section 13 of Chapter 43B specifically defines municipal powers and functions. These powers include "any power or function which the general court has the power to confer upon it..." as long as the power has not been reserved for the legislature by the Constitution, expressly denied to the municipality by its charter, or denied by special laws.

C. Zoning, Chapter 40A

Zoning is the legislated framework within which all land-use decisions are made. Zoning ordinances usually regulate type of use, lot size requirements, lot frontages on public streets, intensity of lot use and other items related to the actual use of land.

In general the Zoning Act provides for wide powers to regulate land. The overriding need is for zoning to protect the public health, safety and welfare. The Zoning Act is the implied authorization for site plan review. Through special permit provisions, local zoning regulations may allow the public an opportunity to comment upon plans and to seek changes that protect public interests.

The Zoning Act may also restrict the type of access to a roadway. For example, a commercial or industrial access road may not be allowed in a residential zone unless the zoning ordinance specifically allows such accesses in the residential zone.

D. Subdivision Act, Chapter 41 Sections 81K through 81GG

The Subdivision Act is the source of authority for community regulation of the division of a tract of land into individual lots. The creation of new roads, and the ability to create official maps for regulating the development of land and the layout of streets, are all governed by the Subdivision Act.

Under the Subdivision Act, a division of land that conforms with the zoning ordinance does not require subdivision approval on an approved street. For subdivisions requiring local planning board approval, Chapter 41 Section 81 provides an opportunity for adequate access to the subdivision, to all parcels in the subdivision, and between the subdivision and local streets. Communities have used these provisions to require driveways and subdivision streets be built to community standards, and to require impact statements to be sure that the intersection of a subdivision access road with city or town streets are not congested.

## III. HOW TO REGULATE DRIVEWAYS AND SUBDIVISION STREETS

Several tools can be used to regulate driveway and subdivision street access to local roads. An access ordinance provides standards, and often review requirements, for access designs. Grouping streets by use provides guidance on standards for the different types of access. Controlling the spacing of driveways protects the safety of the road by making sure that

acceleration and deceleration areas are properly separated. Additionally subdivision controls guide the layout of future roads. A combination of these mechanisms is most effective.

MAPC can provide sample ordinances.

A. Ordinances Regulating Access

A general ordinance regulating site access can provide communities with the power to review curb cuts onto local streets and to comment on state access permits. The ordinance can be as general or as complex as the community desires and can grant review authority to either the planning board or the local highway superintendent. The ordinance should set standards to regulate side-lot setbacks, driveway widths, channelization and pavement markings. An aggressive regulation would seek a thorough review of every access request.

B. Grouping Streets By Use

Grouping streets by use helps in developing standards on the access to be provided to a roadway. This technique is commonly referred to as roadway classification. Classification is used to check the performance of roads and the volume of traffic they carry. The practice places roads in groups such as arterial, collector and local service streets. Streets in each group serve a different purpose and are expected to carry different volumes of traffic.

Ideally arterial roads carry the highest volumes of traffic and should have the most restrictive access. Unfortunately, local regulations often work in reverse, with local service streets restricted in length and the number of sites served and arterial streets having unrestricted access.

Route 1 through Saugus provides a prime example of an arterial roadway with unlimited access. The strip development that has occurred on this portion of highway is due in large part to historic zoning practices that allowed for small lot frontage on major streets.

The Institute for Transportation Engineers (ITE) provides the following four-tiered street classification scheme:[1]

> Local Street: A local street's primary function is to provide land access. Little regulation of access to such streets occurs, except to insure safety. Parking is usually allowed on these streets. Local streets contain 60-80% of the typical street network mileage, but carry only 10-30% of the vehicle miles travelled, typically have low speed limits, are spaced, at minimum, 300 feet apart, and are usually cul-de-sacs or loop roads.

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1 Transportation and Land Development, Vergil G. Stover and Frank J. Koepke, Institute of Transportation Engineers, 1988.

Collector Roads: A collector road's primary function is to collect and distribute traffic between local streets and the arterial system. Collector roads should only serve land access as a secondary function, but may provide parking. To preserve the role of the collector road, direct land access may be regulated slightly more than along local streets; however such regulation continues to be limited and usually consists of safety controls. Collector roads contain 5-10% of the typical road network and carry a similar percentage of the network's traffic volume. Speeds are typically limited to 25-30 miles per hour and the spacing of roadway intersections are, at minimum, 300 feet. Through traffic on collector roads should be discouraged.

Secondary Arterial Roads: Secondary arterial roads function as intercommunity and intra-metro area roads, their primary function being traffic movement. Land access to these roads becomes a minor function. Secondary arterials contain 10-20% of the road network mileage and carry 25-40% of the system's vehicle-miles of travel. Secondary arterial road speeds are usually limited to 30-35 miles per hour. Direct land access to these roads is restricted; some movements, such as left turns, may be prohibited. Driveway access is controlled by location and number. These roads may be multi-lane facilities.

Primary Arterial Roads: Primary arterial roads provide intercommunity access, the primary function being traffic movement. Land access continues to be available for these roads. Primary arterial roads contain 5-10% of the typical network mileage and carry 40-65% of the systems vehicle miles. Typically speeds are between 35 and 45 miles-per-hour in developed areas. Access to primary arterials is limited, major generators are allowed, but access points should be widely spaced; typical roadway intersections are spaced a minimum of one-half mile apart.

C. Controlling the Spacing of Driveways

Controlling the spacing of driveways prevents vehicle delay and safety problems arising from frequent turning maneuvers. Driveway and curb cut spacing regulations can enhance roadway classification ordinances by controlling roadway access in land use regulations.

The distance between potential areas of conflict has been considered the key measure for driveway approval decisions. The proper spacing of curb cuts will simplify the driver's task of watching for potential conflicts. Zoning usually addresses this through minimum frontage requirements and the number of driveways allowed per lot.

1. Frontage

Frontage requirements can protect roads from frequent points of access. Zoning often contains an implicit curb cut policy by setting frontage requirements for subdivision.

Requiring large frontages for subdivisions on a community's more heavily travelled roads and for less frontage on smaller streets can enhance roadway capacity. Unfortunately, most local frontage requirements are least restrictive on major roads. Frontage requirements from four MAPC communities are shown in Table 1.

Table 1
COMMERCIAL AND RESIDENTIAL FRONTAGE REQUIREMENTS

| COMMUNITY | COMMERCIAL FRONTAGE | RESIDENTIAL FRONTAGE |
|---|---|---|
| Danvers | 100 feet - Route 1<br>200 feet - Route 114 | 150 feet |
| Waltham | 50 feet | 100 feet |
| Norfolk | 150 feet | 150 feet |
| Acton | 100 feet | 200 feet |

Table 2 presents spacing needed to cut overlap of accelerating and decelerating vehicles using adjacent driveways. Column one reflects that, at a speed of 30 miles per hour, a vehicle entering traffic will require 90+ feet to accelerate to highway speed and enter traffic. Likewise, a vehicle exiting traffic will require 90+ feet to decelerate and turn into a driveway without significantly affecting through speeds on the highway. A 185-foot spacing of driveways is necessary to avoid conflicts within the accel/decel areas of the two driveways. Table 1 differs substantially from the recommendations in Table 2.

Table 2[2]

DISTANCES NEEDED TO REDUCE COLLISION POTENTIAL DUE TO RIGHT TURN OVERLAP

| Speed (mph) | Vergil Stover Preferable (feet) | AASHTO Minimum Spacing (feet) |
|---|---|---|
| 25 | | 360 |
| 30 | 185 | 585 |
| 35 | 245 | 825 |
| 40 | 300 | 1,140 |
| 45 | 350 | 1,575 |

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[2]Ibid. p. 109

2. Number of Driveways

To protect safety and minimize delay communities should also limit the number of driveways to each lot. The number of curb cuts is important when coupled with the allowed, or required, widths of the cuts themselves. In Natick for instance, the maximum curb line width is 55 feet for a curb cut. Two such driveways on a 200-foot lot would result in 55% of the lot frontage being open to the street. Lynnfield, on the other hand, only allows 40 feet of driveway for its minimum frontage lots, 20% of a 200 foot frontage.

3. Road Districts

The communities on Martha's Vineyard have sought to protect their major roads through the creation of "Island Road Districts." These districts are adopted through zoning bylaws, are supported by findings based upon safety or delay, and are named as "areas of critical planning concern" following the act creating the Martha's Vineyard Commission. Although the commission has general development review and approval authority, community land use actions are usually based on Chapter 40A; therefore the "Island Road District" concept can be adopted by communities not under the Martha's Vineyard Commission umbrella.

Some key aspects of the Island Road District ordinances include:

* Areas within 200 feet of major roads are subject to the district regulations;

* New access applications must be reviewed by the planning board;

* Additional access to major roads must be at least 1,000 feet, measured on the same side of the road, from any other vehicular access;

* Lots of record, not held in common ownership with contiguous lots at the time of adoption of the ordinance are allowed a single access; and

* Subdivision of land into lots do not entitle it to vehicular access to the major roads.

Many of the ordinances also regulate building setbacks and heights in the road districts. The town of Gay Head restricts the width of vehicular accesses to 12 feet.

D. Land Subdivision

The subdivision of land is a particularly thorny area of land regulation for the transportation network. Access problems can be avoided at this stage of planning by deciding in advance how future roads will be laid out in the community.

1. Street Patterns and Official Maps

The subdivision of land enforces particular roadway configurations that may not always provide the best traffic circulation patterns for communities. If a community wants to create an effective network of streets with identified functions, it must actively decide where to locate future roads.

To govern these actions, communities have the power to layout roads and the power to adopt an official map.

a. Power to Layout Roads

Communities have the authority to lay out new roads and to construct them. However, more often, roads are created through land subdivision approval. Very rarely do communities construct new roads.

The subdivision control law charges the community with determining how roads in subdivisions interact with one another, with existing community roads, with adjacent subdivision roads and with potential future subdivisions. For this reason a community should be sure that subdivision regulations include review powers to control the location of roads on a subdivision plan.

b. The Official Map

The official map is a little-used land use control that can regulate where land subdivisions may locate roads. Official maps are authorized in M.G.L. Chapter 41 Section 81E and must be approved by the city council or town meeting much like zoning ordinances.

The official map shows the public ways as laid out and set by law. The map also shows the location of private ways. Alterations to the map may be made through the approval of subdivisions, by recommendation of the planning board or by a two-thirds vote of the city council or town meeting.

The strength of the official map lies in the ability to guide future roadway decisions. Chapter 41 Section 81J allows a planning board to create exterior lines of future ways. Creating these exterior lines allows a community to lay out a road (and pay for any land takings involved), or enable a private land owner the right to construct a road, to town standards, without a subdivision approval requirement.[3]

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[3] The landowner would be entitled to an approval-not-required subdivision upon construction of the road. However, community purposes would be served through the lay out of roads in a planned fashion.

In essence, the official map is a plan for community roads. Usually it will include the series of through streets necessary to protect the future health and safety of the community. Creating exterior lines of future roads can also protect future right-of-ways from encroachment by development.

An important note is that an official map showing the exterior lines of future roads does not "render a city or town liable for damages."[4] Liability occurs when the community takes possession of this land to construct a roadway.

## IV. CONCLUSIONS

MAPC encourages communities to take the steps necessary to regulate access to local roads and to work with the Massachusetts Department of Public Works to be sure that access to all roads is provided in a cooperative community-state process.

This Community Planning Exchange has been developed as a precursor of a report that is being prepared by MAPC's Transportation Planning Group with the aid of local officials in the region. For more information on how your community can proceed with regulating access to local roads contact Daniel Fortier, Chief Transportation Planner.

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[4] M.G.L. Chapter 41 Section 81G.

MAPC

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## COMMUNITY PLANNING EXCHANGES

Community Planning Exchanges are a group of concise informational pieces that describe new planning techniques and regulations. Copies are available at MAPC and cost $3.00 for nonprofit groups and $5.00 for other organizations.

To order, please indicate the number(s) of the publication(s) you would like to receive.

#1. Spot Zoning, by Joel B. Bard, MAPC General Counsel/Assistant Director, March 1984. A description of characteristics which create "spot zoning."

#2. Drainage Design Can Minimize Surface Runoff In Developments, by Albert O. Barbour, P.E., May 1984. A discussion of storm water runoff controls.

#3. Development Limitations, by Nelda Hoxie, Principal Comprehensive Planner, January 1986. A discussion of the legality of some growth management controls.

#4. Summary of Approaches to Provide Affordable Housing, by Donald J. Borchelt, MAPC Principal Housing Planner, April 1986. A description of techniques used to create affordable housing.

#5. Impact Fees, by Alexander V. Zaleski, AICP, MAPC Executive Director, April 1986. Legal, practical considerations for establishing impact fees.

#6. Regional Commercial Growth Management, by Robert A. Bowyer, Town of Lexington Planning Director, July 1986. A description of suburban traffic controls that emphasize partnerships between suburban cities and towns and state transportation agencies.

#7. Fair Housing Techniques, by Carol Baldassari and Donald Borchelt, MAPC Housing Planners, December 1986. Community responsibilities for meeting state Fair Housing Guidelines.

#8. The Changing Face of Land Use Regulations, by Joel B. Bard, MAPC Counsel, August 1987. Legal opinion regarding First English Evangelistic Church of Glendale vs. County of Los Angeles, California.

#9. Introduction to Impact Fee Assessments, by Daniel Fortier, MAPC Transportation Planner, October 1987. Answers to common questions about impact fees.

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#10. The Use of Betterments for Infrastructure Improvements, by Daniel Fortier, MAPC Transportation Planner, November 1987. A description of betterment assessments and controls on their use.

#11. Wetlands Protection at the Local Level, by Lori Thayer, MAPC Coastal/Community Planner, February 1988. Proceedings of the South Shore Coalition Wetlands Workshop, including information on local wetlands bylaws.

#12. Inclusionary Condominium Conversion, A New Idea in Affordable Housing, by Judith Alland, Principal Housing Planner, March 1988. Applies the idea of inclusionary zoning to condominium conversions, providing for a set-aside of permanently affordable housing units when a rental property owner seeks to convert.

#13. A Layman's Guide to Master Plans, by Alexander V. Zaleski, AICP, July 1988, reprinted from 1984. A description of the elements and uses of a master plan, written in layman's terms.

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